

## Abstract

The invention relates to a sensor comprising a housing, inside of which a transmitting antenna array that transmits electromagnetic transmission signals in a radiation area  
5 and a receiving antenna array that receives received signals reflected by at least one object located within the radiation area are provided. The inventive sensor is designed in such a manner that the transmitting antenna array is provided for transmitting transmission signals in a main radiation area (3) and in a secondary radiation area (4) situated at an angle, thereto, and in that the receiving antenna  
10 array (TX) is provided for receiving received signals reflected in both radiation areas (3, 4). This makes it possible, for example when used in a monitor vehicle (5), to monitor the area behind and next to the motor vehicle (5) with a single transmitting antenna (1).